

CLAIMS

We claim:

- 1 1. A saw blade, comprising:
 - 2 an elongated body having a longitudinal edge and defining a plane of main extension;
 - 3 a plurality of protrusions each being located in the region of said longitudinal edge
 - 4 and each including a seat;
 - 5 a plurality of form bodies each being made of hard cutting material, having a cross
 - 6 section and being connected to one of said seats,
 - 7 each cross section of said form bodies in the plane of main extension at a
 - 8 side facing said respective seat being limited by a line in the form of a circular arc
 - 9 and at a side facing away from said respective seat being limited by a front line of a
 - 10 surface,
 - 11 the line in the form of a circular arc and the front line enclosing a wedge angle
 - 12 which is less than approximately 90 degrees and being designed and arranged to
 - 13 form a free angle;
 - 14 a plurality of cutting portions each extending approximately transverse with respect to
 - 15 the plane of main extension; and
 - 16 a plurality of teeth each being formed by one of said protrusions and said respective
 - 17 form body.
 - 1 2. The saw blade of claim 1, wherein at least one of said form bodies is designed as a
 - 2 part of a ball.
 - 1 3. The saw blade of claim 1, wherein at least one of said form bodies is designed as a

2 part of a cylinder.

1 4. The saw blade of claim 2, wherein only the surface limiting said form body at the side
2 facing away from said seat is ground.

1 5. The saw blade of claim 3, wherein only the surface limiting the form body at the side
2 facing away from said seat is ground.

1 6. The saw blade of claim 1, wherein the surface is designed as a plain surface.

1 7. The saw blade of claim 2, wherein the surface is designed as a plain surface.

1 8. The saw blade of claim 3, wherein said surface is designed as a plain surface.

1 9. The saw blade of claim 4, wherein said surface is designed as a plain surface.

1 10. The saw blade of claim 5, wherein said surface is designed as a plain surface.

1 11. The saw blade of claim 2, wherein said part of said ball is less than a semi ball.

1 12. The saw blade of claim 3, wherein said cylinder includes a surface area, two faces
2 and an axis, said part of said cylinder in a transition region being located between said
3 surface area and said faces having a rounded design, and the axis being located to be
4 perpendicular with respect to the plane of main extension.

1 13. The saw blade of claim 1, wherein at least some of said teeth are set.

1 14. The saw blade of claim 1, wherein said saw blade is designed to cut abrasive
2 materials.

1 15. A saw blade for cutting abrasive materials, comprising:
2 an elongated body having a longitudinal edge and defining a plane of main extension;
3 a plurality of protrusions each being located in the region of said longitudinal edge
4 and each including a seat;
5 a plurality of form bodies each being made of hard cutting material, having a cross
6 section and being connected to one of said seats,
7 each cross section of said form bodies in the plane of main extension at a
8 side facing said respective seat being limited by a line in the form of a circular arc
9 and at a side facing away from said respective seat being limited by a front line of a
10 plain, ground surface,
11 the line in the form of a circular arc and the front line enclosing a wedge angle
12 which is less than approximately 90 degrees and being designed and arranged to
13 form a free angle;
14 a plurality of cutting portions each extending approximately transverse with respect to
15 the plane of main extension; and
16 a plurality of teeth each being formed by one of said protrusions and said respective
17 form body.

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1 16. The saw blade of claim 15, wherein at least one of said form bodies is designed as a
2 part of a ball.

1 17. The saw blade of claim 15, wherein at least one of said form bodies is designed as a

2 part of a cylinder.

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1 18. A method of producing a saw blade, said method comprising the steps of:
2 forming a plurality of protrusions at a longitudinal edge of an elongated body;
3 forming a seat at each of the protrusions;
4 connecting a form body being made of hard cutting material to each of the seats;
5 forming a surface at each of the form bodies at a side facing away from the
6 respective seat to form a cutting portion of a tooth; and
7 connecting a round element to each seat in a way that the cutting portion has a
8 wedge angle which is less than approximately 90 degrees and a free angle is formed.

1 19. The method of claim 18, wherein the form body only at its side facing away from the
2 seat is ground.

1 20. The method of claim 18, wherein at least some of the teeth are set.

1 21. The method of claim 19, wherein at least some of the teeth are set.

1 22. The method of claim 18, wherein the saw blade serves to cut abrasive materials.